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<p>(21) International Application Number: PCT/US99/10602</p> <p>(22) International Filing Date: 13 May 1999 (13.05.99)</p> <p>(30) Priority Data:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">60/085,426</td> <td style="width: 40%;">14 May 1998 (14.05.98)</td> <td style="width: 30%;">US</td> </tr> <tr> <td>60/085,537</td> <td>15 May 1998 (15.05.98)</td> <td>US</td> </tr> <tr> <td>60/085,696</td> <td>15 May 1998 (15.05.98)</td> <td>US</td> </tr> <tr> <td>60/105,234</td> <td>21 October 1998 (21.10.98)</td> <td>US</td> </tr> <tr> <td>60/105,877</td> <td>27 October 1998 (27.10.98)</td> <td>US</td> </tr> </table> <p>(71) Applicants: CHIRON CORPORATION [US/US]; 4560 Horton Street - R440, Emeryville, CA 94608 (US). HYSEQ INC. [US/US]; 675 Almanor Avenue, Sunnyvale, CA 94086 (US).</p> <p>(72) Inventors: WILLIAMS, Lewis, T.; 3 Miroflores, Tiburon, CA 94920 (US). ESCOBEDO, Jaime; 1470 Lavorna Road, Alamo, CA 94507 (US). INNIS, Michael, A.; 315 Constance Place, Moraga, CA 94556 (US). GARCIA, Pablo, Dominguez; 882 Chenery Street, San Francisco, CA 94131 (US). SUDDUTH-KLINGER, Julie; 280 Lexington Road, Kensington, CA 94707 (US). REINHARD, Christoph; 1633 Clinton Avenue, Alameda, CA 94501 (US). GIESE, Klaus; Chausseestrasse 92, D-10115 Berlin (DE). RANDAZZO, Filippo; Apartment 403, 690 Chestnut Street, San Francisco, CA 94133 (US). KENNEDY, Giulia, C.; 360 Castenada Avenue, San Francisco, CA 94116 (US). POT, David; 1565 5th Avenue #102, San Francisco, CA 94112 (US). KASSAM, Altaf; 2659 Harold Street, Oakland, CA 94602 (US). LAMSON, George; 232 Sandringham Drive, Moraga, CA 94556 (US). DRMANAC, Radoje; 850 East Greenwich Place, Palo Alto, CA 94303 (US). CRKVENJAKOV, Radomir; 762 Haverhill Drive, Sunnyvale, CA 94068 (US). DICKSON, Mark; 1411 Gabilan Drive #B, Hollister, CA 95025 (US). DRMANAC, Snezana; 850 East Greenwich Place, Palo Alto, CA 94303 (US). LABAT, Ivan; 140 Acalanes Drive, Sunnyvale, CA 94086 (US). LESHKOWITZ, Dena; 678 Durshire Way, Sunnyvale, CA 94087 (US). KITA, David; 899 Bounty Drive, Foster City, CA 94404 (US). GARCIA, Veronica; Apartment 412, 396 Ano Nuevo, Sunnyvale, CA 94086 (US). JONES, Lee, William; 396 Ano Nuevo #412, Sunnyvale, CA 94086 (US). STACHE-CRAIN, Birgit; 345 South Mary Avenue, Sunnyvale, CA 94086 (US).</p> <p>(74) Agent: BLACKBURN, Robert, P.; Chiron Corporation, P.O. Box 8097, Emeryville, CA 94662-8097 (US).</p> <p>(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</p> <p>Published <i>Without international search report and to be republished upon receipt of that report.</i></p>			60/085,426	14 May 1998 (14.05.98)	US	60/085,537	15 May 1998 (15.05.98)	US	60/085,696	15 May 1998 (15.05.98)	US	60/105,234	21 October 1998 (21.10.98)	US	60/105,877	27 October 1998 (27.10.98)	US
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60/105,877	27 October 1998 (27.10.98)	US															
<p>(54) Title: HUMAN GENES AND GENE EXPRESSION PRODUCTS V</p> <p>(57) Abstract</p> <p>This invention relates to novel human polynucleotides and variants thereof, their encoded polypeptides and variants thereof, to genes corresponding to these polynucleotides and to proteins expressed by the genes. The invention also relates to diagnostic and therapeutic agents employing such novel human polynucleotides, their corresponding genes or gene products, e.g., these genes and proteins, including probes, antisense constructs, and antibodies.</p>																	

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We Claim:

1. A library of polynucleotides, the library comprising the sequence information of at least one of SEQ ID NOS:1-2702.

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2. The library of claim 1, wherein the library is provided on a nucleic acid array.

3. The library of claim 1, wherein the library is provided in a computer-readable format.

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4. The library of claim 1, wherein the library comprises a polynucleotide corresponding to a gene differentially expressed in a cancer cell of high metastatic potential relative to a control cell, wherein the control cell is a normal cell or a cell of low metastatic potential, and wherein the sequence is selected from the group consisting of SEQ ID NOS:1213, 1538, 1466, 1356, 1383, 1158, 441, 1338, 1426, 1547, 1313, 841, 1534, 1503, 829, 1408, 1447, 1389, 356, 1492, 1543, 799, 1437, 1251, 972, 1482, 1299, 109, 1558, 1355, 1548, 250, 919, 358, 1525, 1157, 150, 651, 1298, 57, 625, 1322, 36, 621, 215, 561, 247, 199, 998, 502, 1382, 1181, 1309, 1157, 1260, 1185, 1525, 248, 87, 698, 57, 924, 1249.

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5. The library of claim 1, wherein the library comprises a polynucleotide corresponding to a gene differentially expressed in a cancer cell of low metastatic potential relative to a control cell, wherein the control cell is a normal cell or a cell of high metastatic potential, and wherein the sequence is selected from the group consisting of SEQ ID NOS:248, 726, 14, 699, 763, 20, 79, 715, 991, 1199, 707, 1128, 891, 1146, 731, 1518, 340, 949, 1247, 1185, 924, 822, 728, 341, 1527, 698, 949, 744, 973, 1268, 1114, 1032, 109, 973, 91, 982, 1267, 93, 1556, 1251, 1206, 812, 1254, 1220, 766, 1156, 1007, 981, 762, 876, 1234, 1183, 1044, 785, 1069, 770, 778, 792, 822, 1258, 1224, 984, 841, 339, 1213, 1201, 1192.

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6. An isolated polynucleotide comprising a nucleotide sequence having at least 90% sequence identity to an identifying sequence of SEQ ID NOS:1-2707 or a degenerate variant or fragment thereof.

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7. A recombinant host cell containing the polynucleotide of claim 6.

8. An isolated polypeptide encoded by the polynucleotide of claim 6.

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9. An antibody that specifically binds a polypeptide of claim 8.

10. A vector comprising the polynucleotide of claim 6.

11. A polynucleotide comprising the nucleotide sequence of an insert contained in a clone deposited as ATCC accession number xx, xx, xx, xx, xx, xx, xx, or xx.

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12. A method of detecting differentially expressed genes correlated with a cancerous state of a mammalian cell, the method comprising the step of:

detecting at least one differentially expressed gene product in a test sample derived from a cell suspected of being cancerous, where the gene product is encoded by a gene corresponding to a sequence of at least one of SEQ ID NOS: 1213, 1538, 1466, 1356, 1383, 1158, 441, 1338, 1426, 1547, 1313, 841, 1534, 1503, 829, 1408, 1447, 1389, 356, 1492, 1543, 799, 1437, 1251, 972, 1482, 1299, 109, 1558, 1355, 1548, 250, 919, 358, 1525, 1157, 150, 651, 1298, 57, 625, 1322, 36, 621, 215, 561, 247, 199, 998, 502, 1382, 1181, 1309, 1157, 1260, 1185, 1525, 248, 87, 698, 57, 924, 1249, 248, 726, 14, 699, 763, 20, 79, 715, 991, 1199, 707, 1128, 891, 1146, 731, 1518, 340, 949, 1247, 1185, 924, 822, 728, 341, 1527, 698, 949, 744, 973, 1268, 1114, 1032, 109, 973, 91, 982, 1267, 93, 1556, 1251, 1206, 812, 1254, 1220, 766, 1156, 1007, 981, 762, 876, 1234, 1183, 1044, 785, 1069, 770, 778, 792, 822, 1258, 1224, 984, 841, 339, 1213, 1201, 1192

wherein detection of the differentially expressed gene product is correlated with a cancerous state of the cell from which the test sample was derived.

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